



Arlington Historic District Commissions

Application for Certificate

(Read attached instructions
before completing form)

For Commission Use Only:

Date Rec: _____

Hearing Date: _____

Certificate #: _____

Monitor: _____

Certificate Requested:

Appropriateness – for work described herein

Minor project ☒ Major Project Demolition

Non-Applicability – for the following reason(s):

Not subject to public view

Maintenance, repair, or replacement using same design and materials

Proposed change specifically excluded from review under Bylaw

Other: _____

Hardship – financial or otherwise and does not conflict substantially with
the intent and purposes of the Bylaw

General Information:

Property Address 204 Pleasant St, Arlington, MA 02476, US District _____

Owner(s) Paul English Email pmeboston@gmail.com

Owner's Phone (h) _____ (w) _____ (fax) _____

Owner's Address 204 Pleasant St, Arlington, MA 02476, US

Applicant (if not Owner) Tesla Energy Operations: Lynelle Mastromarino

Applicant's Phone (h) _____ (w) 978-956-3146 (fax) _____

Applicant's Address 240 Ballardvale St Unit A Wilmington, MA 01887

Applicant's Relationship to Owner Authorized Agent

Contractor Tesla Energy Operations: Daniel Fonzi Phone 978-956-3146

Architect _____ Phone _____

Dates of Anticipated Work: Start _____ Completion _____

Description of Proposed Work: (attach additional pages as necessary) Please include a description of how the proposed work (if a change or addition) is historically and architecturally compatible with the building and the District as a whole.

Install 48 solar panel system to the roof of house rated @ 16.32 kW

Required Documentation Acknowledgement: (see attached instructions)

× I acknowledge that I am required to provide supporting documentation, including the attached "Supporting Documents Checklist", by the deadlines indicated in the instructions. I understand that if such documents are not provided in a timely manner, this application will be considered to be incomplete and Commission action may be delayed.

I have read the attached instructions and, to the best of my knowledge, the information contained in this application is accurate and complete. I also give permission for members of the AHDC to access the property for the purpose of reviewing this application and work done under any certificate issued to me.

Owners Signature(s): P. W. Date: 11/5/2020

ARLINGTON HISTORIC DISTRICT APPLICATION

Supporting Documentation Checklist

Property Address 204 Pleasant St, Arlington, MA 02476, US District
 Applicant's Name Paul English Email pmeboston@gmail.com
 Applicant's Phone (Day) (Mobile)

☐ **For Minor Projects or Certificate of Non-Applicability**

☐ **Drawings (11x17 max., with graphic scale, dimensioned, all materials identified) or marked up Photographs (8x10)**

Existing conditions of historic façade(s) to be modified; Show location of proposed work; Show proposed feature(s); Elevations showing proposed work and context; Drawing showing location of proposed work; Drawing showing the proposed feature(s); Site plan for site located equipment and features

☐ **Manufacturer's literature and specifications sheets describing the proposed feature(s)**

☐ **Description of how the proposed work is either compatible with the District or Non-Applicable**

☒ **For Major Projects**

☒ **Photographs (8x10)**

Existing conditions of historic structure to be modified (facades, roofs, neighboring buildings); Site; Neighborhood context; Historic precedents for proposed work

☒ **Drawings (11x17 max., with graphic scale, must show differentiated existing and proposed conditions, dimensions, and all materials identified)**

○ **Plans**

Site (showing proposed structures, fences, walls, parking, HVAC equipment, electrical equipment, and relationship to adjacent roads, neighboring buildings); Each floor; Roof (showing valleys, hips, ridges, dormers, skylights, chimneys, vents, HVAC equipment, solar panels)

○ **Elevations of building facades- identify:**

Foundation; Siding ; Trim; Gutters; Downspouts; Shutters; Railings; Stairs; Windows; Doors; Roof materials; Roof pitch; Chimneys and vents; Masonry; Light fixtures; Solar panels; HVAC equipment; Electrical equipment; Fences; Signage

○ **Wall sections (especially showing projecting features such as bays, balconies, porches, additions)**

○ **Relevant exterior detail drawings (architectural trim, eaves, doors, windows, caps, columns, vents, rail systems)**

○ **Profile drawings (window and door elements, railings, balusters, stairs, shutters, roof trim, corner boards, casings, water tables, skirts, frieze boards, and all other trim)**

○ **For projections, additions and new construction also include:**

Neighborhood lot plan- include footprint to lot area ratio as well as that of neighboring lots; Plot plan- existing building(s), setbacks, proposed new structures; Site section (show relationship to site topography, adjacent structures, major landscape features, roads)

☒ **Manufacturers' literature and specification sheets describing the proposed components**

☐ **Suggested Supporting Submittals: Model; Physical Samples**

☒ **Description of how the proposed work is compatible with the District.**

☐ **For Demolition**

☐ **Statement of current state of existing structure and reason for demolition**

☐ **Statement of the historic significance of the structure**

☐ **Site Documentation (including Plot plan; Photographs of existing conditions; List existing materials; Year built; Original architect)**

☐ **Other provided documentation not described above (please list on a separate attached sheet).**

Applicants Signature(s): Lynelle Mastro Date: 11/6/20

3

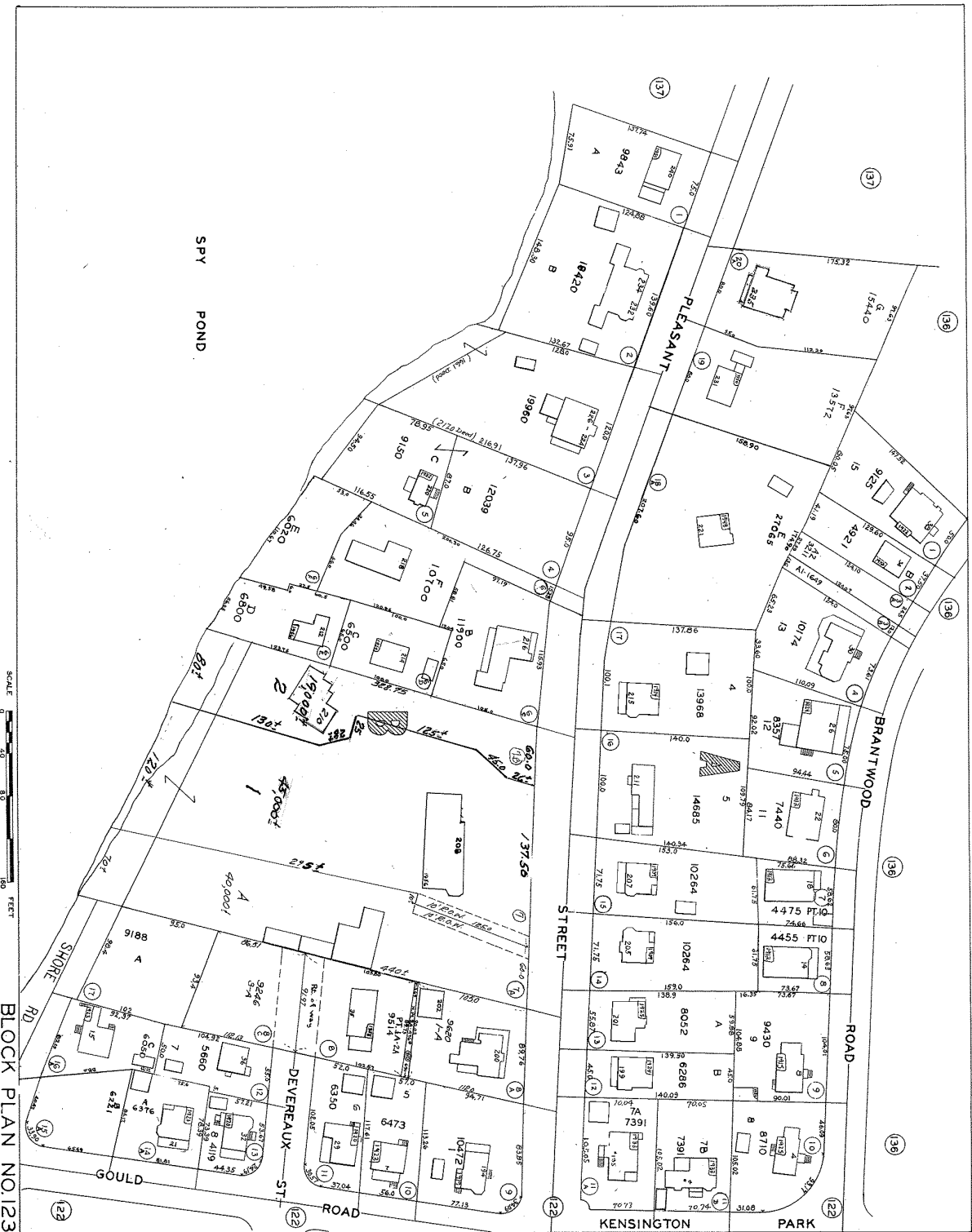
Pleasant St

Devereaux St

Gould Rd

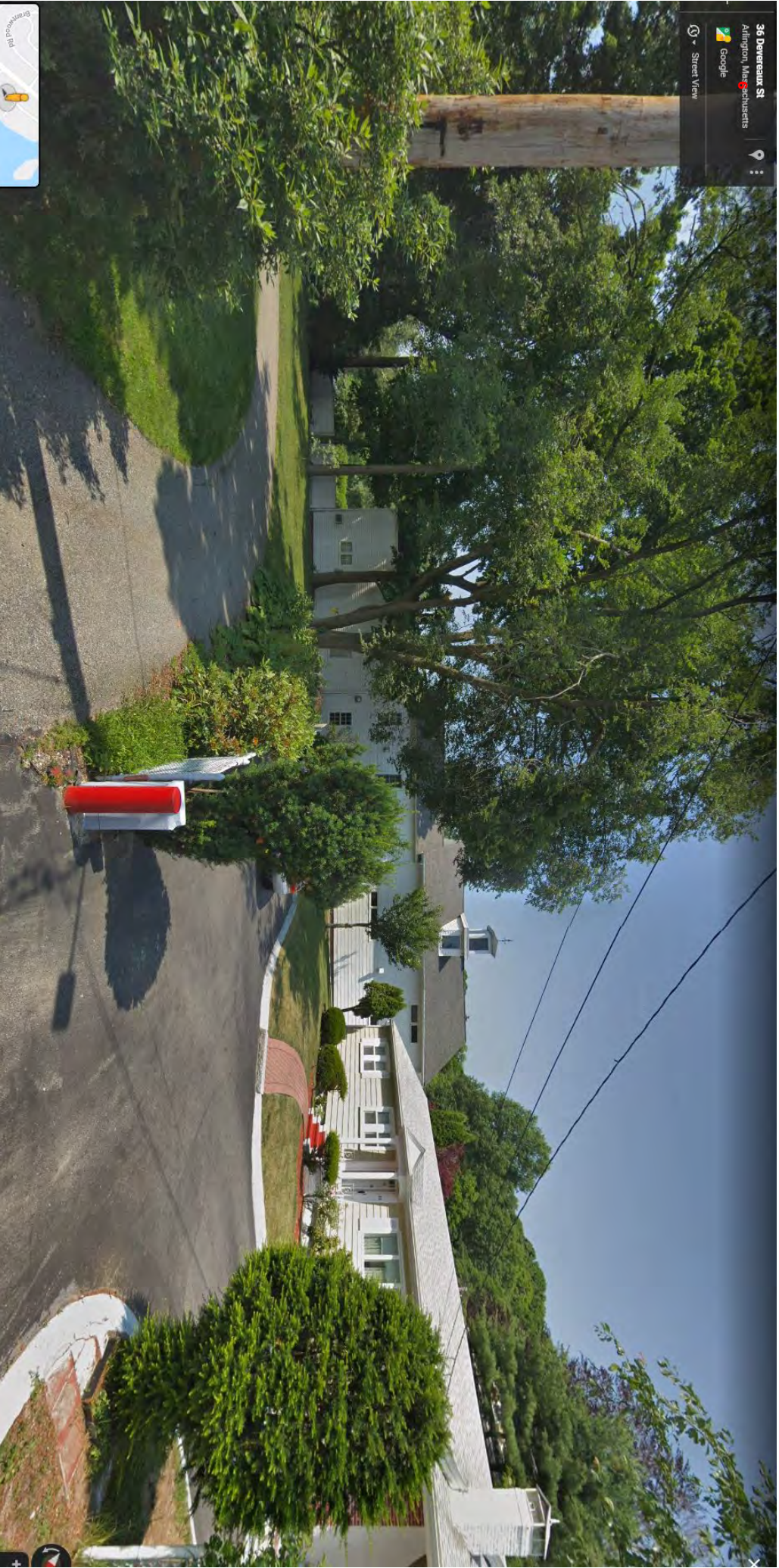


204 Pleasant Street





- Places by Category
- Police Station
 - Fire Station
 - School
 - Library
 - Poles (For Base Maps - Hi Voltage)
 - Police Sign
 - Signal Light
 - Street Light
 - Parcels
- Buildings
- Recreation - Facilities
 - Recreation - Fields Courts
 - Recreation - Fields Courts
 - Open Space - Conservation
 - Open Space - Minuteman I
 - Open Space - Labels
 - Open Space
 - Open Space - State or Private
 - MA Highways
 - Interstate
 - US Highway
 - Numbered Routes
 - Abutting Towns
 - Town Boundary
 - Cemetery - Roads
 - Road1
 - Road2
 - Road3
 - Road4
 - Pavement Markings
 - Impervious Surface - For B
 - Street
 - Sidewalk
 - Street Island
 - Driveway
 - Parking Lot
 - Bike Path
 - Roads - For Large Scale (f
 - Roads - For Small Scale (f
 - Major Road
 - Local Road
 - Master Plan Base Map - M
 - Water Line
 - Water Body






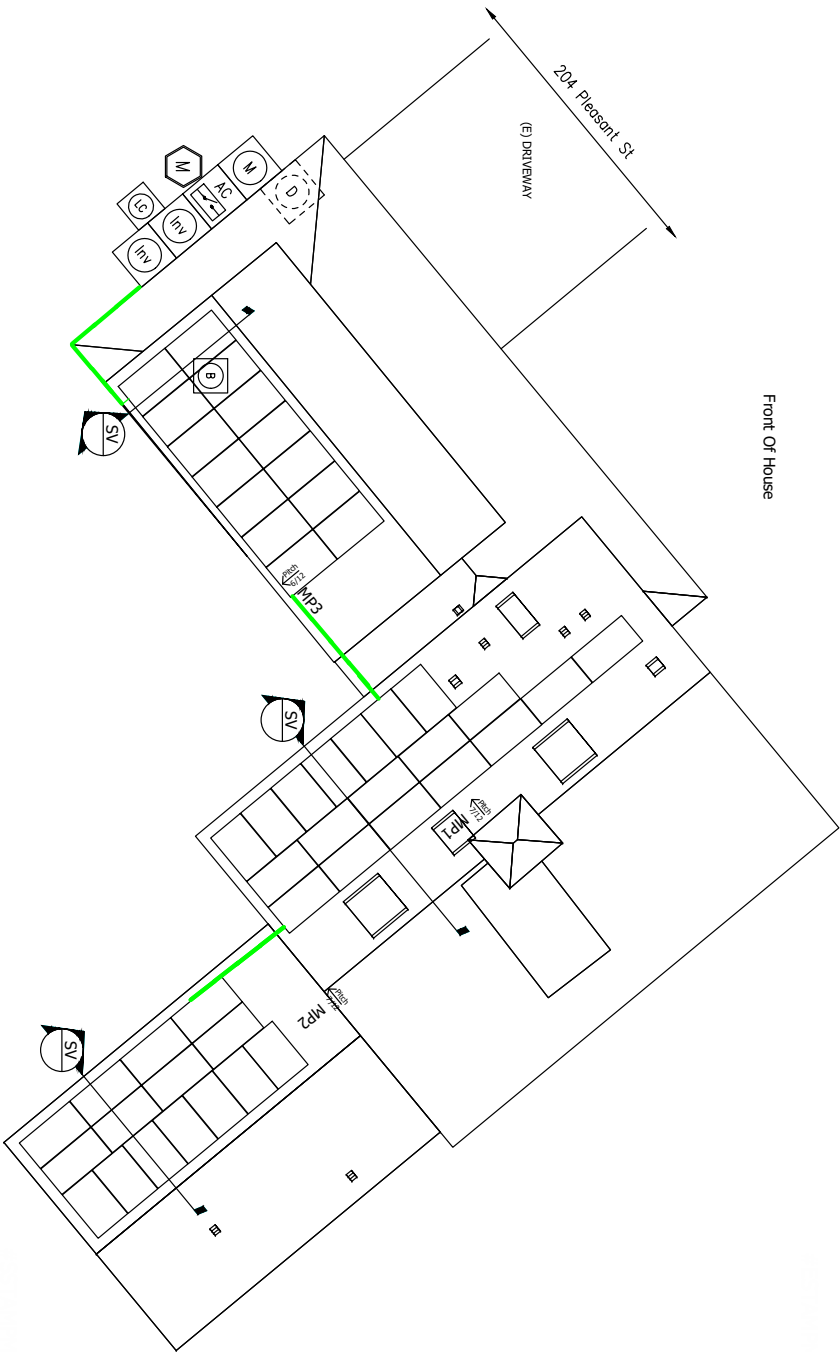
205 Pleasant St
Arlington, Massachusetts



Street View



ABBREVIATIONS		ELECTRICAL NOTES		JURISDICTION NOTES																													
<p>A AMPERE AC ALTERNATING CURRENT BLDG BUILDING CONC CONCRETE DC DIRECT CURRENT EGC EQUIPMENT GROUNDING CONDUCTOR (E) EXISTING EMT ELECTRICAL METALLIC TUBING FSB FIRE SET-BACK GALV GALVANIZED GEC GROUNDING ELECTRODE CONDUCTOR GND GROUND HDG HOT DIPPED GALVANIZED I CURRENT IMP CURRENT AT MAX POWER Isc SHORT CIRCUIT CURRENT KVA KILOVOLT AMPERE KW KILOWATT LBW LOAD BEARING WALL MIN MINIMUM (N) NEW NEUT NEUTRAL NTS NOT TO SCALE OC ON CENTER PL PROPERTY LINE POI POINT OF INTERCONNECTION PV PHOTOVOLTAGIC SCH SCHEDULE S STAINLESS STEEL STC STANDARD TESTING CONDITIONS TYP TYPICAL UPS UNINTERRUPTIBLE POWER SUPPLY V VOLT Vmp VOLTAGE AT MAX POWER Voc VOLTAGE AT OPEN CIRCUIT W WATT 3R NEMA 3R, RAIN/TIGHT</p>		<p>1. THIS SYSTEM IS GRID-INTERTIED VIA A UL-LISTED POWER-CONDITIONING INVERTER. 2. THIS SYSTEM HAS NO BATTERIES, NO UPS. 3. A NATIONALLY-RECOGNIZED TESTING LABORATORY SHALL LIST ALL EQUIPMENT IN COMPLIANCE WITH ART. 110.3. 4. WHERE ALL TERMINALS OF THE DISCONNECTING MEANS MAY BE ENERGIZED IN THE OPEN POSITION, A SIGN WILL BE PROVIDED WARNING OF THE HAZARDS PER ART. 690.17. 5. EACH UNGROUNDED CONDUCTOR OF THE MULTIWIRE BRANCH CIRCUIT WILL BE IDENTIFIED BY PHASE AND SYSTEM PER ART. 210.5 6. CIRCUITS OVER 250V TO GROUND SHALL COMPLY WITH ART. 250.97, 250.92(B). 7. DC CONDUCTORS EITHER DO NOT ENTER BUILDING OR ARE RUN IN METALLIC RACEWAYS OR ENCLOSURES TO THE FIRST ACCESSIBLE DC DISCONNECTING MEANS PER ART. 690.31(E). 8. ALL WIRES SHALL BE PROVIDED WITH STRAIN RELIEF AT ALL ENTRY INTO BOXES AS REQUIRED BY UL LISTING. 9. MODULE FRAMES SHALL BE GROUNDED AT THE UL-LISTED LOCATION PROVIDED BY THE MANUFACTURER USING UL LISTED GROUNDING HARDWARE. 10. MODULE FRAMES, RAIL, AND POSTS SHALL BE BONDED WITH EQUIPMENT GROUND CONDUCTORS.</p>																															
LICENSE		GENERAL NOTES		VICINITY MAP																													
<p>HIC #168572 ELEC 22812A</p>		<p>1. ALL WORK TO BE DONE TO THE 9TH EDITION OF THE MA STATE BUILDING CODE. 2. ALL ELECTRICAL WORK SHALL COMPLY WITH THE 2020 NATIONAL ELECTRIC CODE INCLUDING MASSACHUSETTS AMENDMENTS.</p>																															
MODULE GROUNDING METHOD: ZEP SOLAR				INDEX																													
AHL: Arlington				<table><thead><tr><th>REV</th><th>BY</th><th>DATE</th><th>COMMENTS</th></tr></thead><tbody><tr><td>Sheet 1</td><td></td><td></td><td>COVER SHEET</td></tr><tr><td>Sheet 2</td><td></td><td></td><td>SITE PLAN</td></tr><tr><td>Sheet 3</td><td></td><td></td><td>STRUCTURAL VIEWS</td></tr><tr><td>Sheet 4</td><td></td><td></td><td>UPLIFT CALCULATIONS</td></tr><tr><td>Sheet 5</td><td></td><td></td><td>THREE LINE DIAGRAM</td></tr><tr><td colspan="4">Cutsheets Attached</td></tr></tbody></table>		REV	BY	DATE	COMMENTS	Sheet 1			COVER SHEET	Sheet 2			SITE PLAN	Sheet 3			STRUCTURAL VIEWS	Sheet 4			UPLIFT CALCULATIONS	Sheet 5			THREE LINE DIAGRAM	Cutsheets Attached			
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UTILITY: Eversource Energy – South Shore (NSTAR–Commonwealth Electric)				T E S L N																													
<p>CONTINGENTAL – THE INFORMATION HEREIN CONTAINED SHALL NOT BE USED FOR THE INSTALLATION OF ANY EQUIPMENT OR MATERIALS THAT BE INSTALLED IN WHOLE OR IN PART TO OTHERS OUTSIDE THE REQUESTOR'S ORGANIZATION, EXCEPT IN CONNECTION WITH THE SALE AND USE OF THE RESPECTIVE TESLA EQUIPMENT, WITHOUT THE WRITTEN PERMISSION OF TESLA INC.</p>		<p>JOB NUMBER JB-0243694 00</p> <p>MODULING SYSTEM 3S Comp V4 w Flushing-Insert</p> <p>MODULES (48) Homwha Q-CELLS # Q-Peak DUO BLK-G6+ 340</p> <p>INVERTER: SolarEdge Technologies Ltd. # SE7600H-US [240V]</p>		<p>CUSTOMER: Paul English 204 Pleasant St Arlington, MA 02476</p> <p>DESCRIPTION: 16.32 KW PV ARRAY</p> <p>DESIGN: Jonathan Chavez</p> <p>SHEET: 1 REV: 8/14/2020</p> <p>COVER SHEET</p>																													



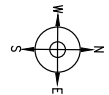
MP1	PITCH: 30	ARRAY PITCH: 30
	AZIMUTH: 230	ARRAY AZIMUTH: 230
	MATERIAL: Comp Shingle	STORY: 2 Stories
MP2	PITCH: 30	ARRAY PITCH: 30
	AZIMUTH: 230	ARRAY AZIMUTH: 230
	MATERIAL: Comp Shingle	STORY: 2 Stories
MP3	PITCH: 23	ARRAY PITCH: 23
	AZIMUTH: 140	ARRAY AZIMUTH: 140
	MATERIAL: Comp Shingle	STORY: 2 Stories

LEGEND

- (E) UTILITY METER & WARNING LABEL
- INVERTER W/ INTEGRATED DC DISCO & WARNING LABELS
- DC DISCONNECT & WARNING LABELS
- AC DISCONNECT & WARNING LABELS
- DC JUNCTION/COMBINER BOX & LABELS
- DISTRIBUTION PANEL & LABELS
- LOAD CENTER & WARNING LABELS
- DEDICATED PV SYSTEM METER
- RAPID SHUTDOWN
- STANDOFF LOCATIONS
- CONDUIT RUN ON EXTERIOR
- CONDUIT RUN ON INTERIOR
- GATE/FENCE
- HEAT PRODUCING VENTS ARE RED
- INTERIOR EQUIPMENT IS DASHED

SITE PLAN

Scale: 3/32" = 1'



CONTAINED - THE INFORMATION HEREIN CONTAINED SHALL NOT BE USED FOR THE SALE OF ANY PRODUCT OR SERVICE, NOR SHALL IT BE ASSIGNED, WHOLE OR PART TO OTHERS OUTSIDE THE RECIPIENT'S ORGANIZATION, EXCEPT IN CONNECTION WITH THE SALE AND USE OF THE RESPECTIVE TEST EQUIPMENT, WITHOUT THE WRITTEN PERMISSION OF TESLA INC.

JOB NUMBER: JB-0243694 00
MODULO SYSTEM: S5 Comp V4 w Flushing-Insert
MODULES: (48) Homwha Q-CELLS # Q.Peak DUO BLK-G6+ 340
INVERTER: SolarEdge Technologies Ltd. # SE7600H-US [240V]

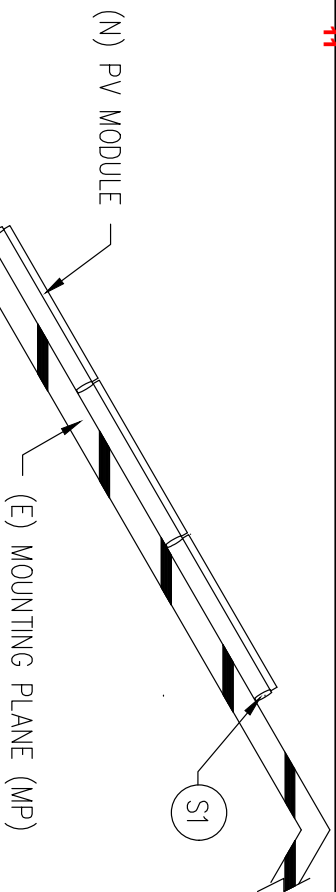
CUSTOMER: Paul English
204 Pleasant St
Arlington, MA 02476

DESCRIPTION: 16.32 KW PV ARRAY

PLACE NAME: SITE PLAN

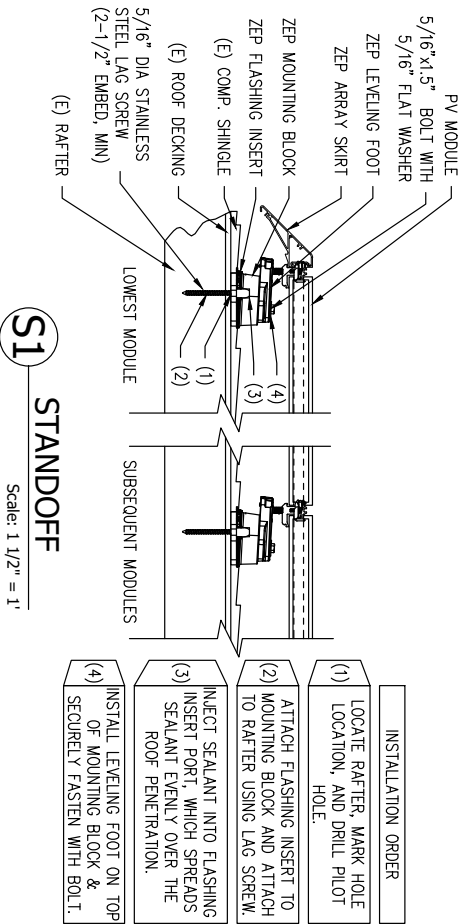
DESIGN: Jonathan Chavez
SHEET: 2
REV: 8/14/2020

TESLA



SV TYPICAL PV SIDE VIEW

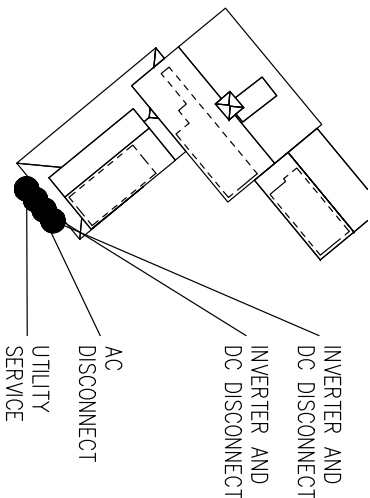
NTS



CONFIDENTIAL - THE INFORMATION HEREIN CONTAINED SHALL NOT BE USED FOR THE PURPOSE OF REPRODUCING, COPIING, OR SHALL IT BE DISCLOSED, MADE OR PART TO OTHERS OUTSIDE THE RECIPIENT'S ORGANIZATION, EXCEPT IN CONNECTION WITH THE SALE AND USE OF THE RESPECTIVE TESTAL EQUIPMENT, WITHOUT THE WRITTEN PERMISSION OF TESTAL INC.			
JOB NUMBER:	JB-0243694 00	CUSTOMER:	Paul English 204 Pleasant St Arlington, MA 02476
WORKING SYSTEM:	ZS Comp V4 w Flashing-Insert	DESCRIPTION:	16.32 KW PV ARRAY
MODULES:	(48) Hanwha Q-CELLS # Q.Peak DUO BLK-G6+ 340	DESIGN:	Jonathan Chavez
INVERTER:	SolarEdge Technologies Ltd. # SE7600H-US [240V]	PAGE NAME:	STRUCTURAL VIEWS
		SHEET:	3
		REV:	
		DATE:	8/14/2020
		TESTALN	

CAUTION

POWER TO THIS BUILDING IS ALSO SUPPLIED FROM THE FOLLOWING SOURCES WITH DISCONNECTS LOCATED AS SHOWN:
- Address: 204 Pleasant St



[SOLAR PHOTOVOLTAIC ARRAY(S)]

**PHOTOVOLTAIC BACK-FED CIRCUIT BREAKER IN MAIN ELECTRICAL PANEL
IS AN A/C DISCONNECT PER NEC 690.17**

OPERATING VOLTAGE = 240V JB-0243694-00

CONFIDENTIAL - THE INFORMATION HEREIN CONTAINED SHALL NOT BE USED FOR THE DESIGN, CONSTRUCTION, INSTALLATION, OR MAINTENANCE OF ANY ELECTRICAL SYSTEM, NOR SHALL IT BE DISCLOSED, MADE A PART TO OTHERS OUTSIDE THE RECIPIENT'S ORGANIZATION, EXCEPT IN CONNECTION WITH THE SALE AND USE OF THE RESPECTIVE TEST EQUIPMENT, WITHOUT THE WRITTEN PERMISSION OF TESLA INC.			
JOB NUMBER:	JB-0243694 00	CUSTOMER:	Poul English 204 Pleasant St Arlington, MA 02476
WORKING SYSTEM:	ZS Comp V4 w Flashing-Insert	DESCRIPTION:	16.32 KW PV ARRAY
MODULES:	(48) Hanwha Q-CELLS # Q.Peak DUO BLK-G6+ 340		
INVERTER:	SolarEdge Technologies Ltd. # SE7600H-US [240V]	PAGE NAME:	SITE PLAN PLACARD
		DESIGN:	Jonathan Chavez
		SHEET:	6
		REV:	
		DATE:	8/14/2020
		TESLA	

<div><div>WARNING: PHOTOVOLTALIC POWER SOURCE</div><div>Label Location: (C)/(CB)/(B) Per Code: NEC 690.31 G.3 Label Location: (DC) (INV) Per Code: NEC 690.13 B</div></div>				<div><div>WARNING</div><div>Label Location: (AC)/(POI) Per Code: NEC 690.13 B</div></div> <div><div>WARNING</div><div>Label Location: (DC) (INV) Per Code: NEC 705.12 B.2.3.b</div></div> <div><div>WARNING</div><div>Label Location: (DC) (INV) Per Code: 690.56(C)(1)(a)</div></div>			
<div><div>PHOTOVOLTALIC DC DISCONNECT</div><div>Label Location: (AO) (POI) Per Code: NEC 690.13 B</div></div>				<div><div>WARNING</div><div>Label Location: (POI) Per Code: NEC 705.12 B.2.3.b</div></div> <div><div>WARNING</div><div>Label Location: (POI) Per Code: 690.56(C)(1)(b)</div></div>			
<div><div>MAXIMUM VOLTAGE MAXIMUM CIRCUIT CURRENT MAX RATED OUTPUT CURRENT OF THE CHARGE CONTROLLER OR DC-TO-DC CONVERTER (IF INSTALLED)</div><div><div>Label Location: (DC) (INV) Per Code: NEC 690.53</div></div></div>				<div><div>WARNING</div><div>Label Location: (POI) Per Code: NEC 705.12 B.2.3.b</div></div> <div><div>SOLAR PV SYSTEM EQUIPPED WITH RAPID SHUTDOWN</div><div>Label Location: ABB/Delta Solivia Inverter Per Code: 690.56(C)(1)(b)</div></div>			
<div><div>WARNING</div><div>Label Location: (DC) (INV) Per Code: 690.41 B</div></div>				<div><div>PHOTOVOLTALIC SYSTEM EQUIPPED WITH RAPID SHUTDOWN</div><div>Label Location: (INV) Per Code: NEC 690.56 C.3</div></div> <div><div>SOLAR PV SYSTEM EQUIPPED WITH RAPID SHUTDOWN</div><div>Label Location: SolarEdge/Delta M-Series Inverter Per Code: 690.56(C)(1)(a)</div></div>			
<div><div>WARNING</div><div>Label Location: (DC) (CB) Per Code: CEC 690.13 B</div></div>				<div><div>CAUTION</div><div>Label Location: (D) (POI) Per Code: NEC 690.64 B.4</div></div> <div><div>PHOTOVOLTALIC SYSTEM EQUIPPED WITH RAPID SHUTDOWN</div><div>Label Location: (POI) Per Code: NEC 705.12 B.3</div></div>			
<div><div>WARNING</div><div>Label Location: (DC) (CB) Per Code: CEC 690.13 B</div></div>				<div><div>CAUTION</div><div>Label Location: (POI) Per Code: CEC 690.13 B</div></div> <div><div>PHOTOVOLTALIC POINT OF INTERCONNECTION WARNING: ELECTRIC SHOCK HAZARD. DO NOT TOUCH TERMINALS ON BOTH LINE AND LOAD SIDES. TERMINALS ON BOTH THE LINE AND LOAD SIDE MAY BE ENERGIZED IN THE OPEN POSITION FOR SERVICE DE-ENERGIZE BOTH SOURCE AND MAIN BREAKER. PV POWER SOURCE</div><div>Label Location: (POI) Per Code: CEC 690.13 B</div></div>			
<div><div>PHOTOVOLTALIC AC DISCONNECT</div><div>Label Location: (AO) (POI) Per Code: NEC 690.13 B</div></div>				<div><div>PHOTOVOLTALIC POINT OF INTERCONNECTION WARNING: ELECTRIC SHOCK HAZARD. DO NOT TOUCH TERMINALS ON BOTH LINE AND LOAD SIDES. TERMINALS ON BOTH THE LINE AND LOAD SIDE MAY BE ENERGIZED IN THE OPEN POSITION FOR SERVICE DE-ENERGIZE BOTH SOURCE AND MAIN BREAKER. PV POWER SOURCE</div><div>Label Location: (POI) Per Code: CEC 690.13 B</div></div> <div><div>PHOTOVOLTALIC POINT OF INTERCONNECTION WARNING: ELECTRIC SHOCK HAZARD. DO NOT TOUCH TERMINALS ON BOTH LINE AND LOAD SIDES. TERMINALS ON BOTH THE LINE AND LOAD SIDE MAY BE ENERGIZED IN THE OPEN POSITION FOR SERVICE DE-ENERGIZE BOTH SOURCE AND MAIN BREAKER. PV POWER SOURCE</div><div>Label Location: (POI) Per Code: CEC 690.13 B</div></div>			
<div><div>MAXIMUM AC OPERATING CURRENT MAXIMUM AC OPERATING VOLTAGE</div><div><div>Label Location: (AO) (POI) Per Code: NEC 690.54</div></div></div>				<div><div>MAXIMUM AC OPERATING CURRENT MAXIMUM AC OPERATING VOLTAGE</div><div><div>Label Location: (AO) (POI) Per Code: NEC 690.54</div></div></div> <div><div>MAXIMUM AC OPERATING CURRENT MAXIMUM AC OPERATING VOLTAGE</div><div><div>Label Location: (AO) (POI) Per Code: NEC 690.54</div></div></div>			
<div>Label Set</div>				<div>Label Set</div>			

- (AC): AC Disconnect
- (C): Conduit
- (CB): Combiner Box
- (D): Distribution Panel
- (DC): DC Disconnect
- (IC): Interior Run Conduit
- (INV): Inverter With Integrated DC Disconnect
- (LC): Load Center
- (M): Utility Meter
- (POI): Point of Interconnection



SolarEdge Power Optimizer - Zep Compatible™ Module Add-On For North America P300-ZEP, P400-ZEP

POWER OPTIMIZER



Compatible with Zep Groove framed modules

- Certified Zep Compatible™ bracket
- Attaches to module frame without screws - reduces on-roof labor and mounting costs
- Power optimizer equipment grounded through the bracket
- Up to 25% more energy
- Superior efficiency (99.5%)
- Mitigates all types of module mismatch losses, from manufacturing tolerance to partial shading
- Flexible system design for maximum space utilization
- Next generation maintenance with module-level monitoring
- Module-level voltage shutdown for installer and firefighter safety

USA - CANADA - GERMANY - ITALY - FRANCE - JAPAN - CHINA - AUSTRALIA - THE NETHERLANDS - UK - ISRAEL - TURKEY - HUNGARY - BELGIUM - ROMANIA - BULGARIA

www.solar-edge.com



SolarEdge Power Optimizer - Zep Compatible™ Module Add-On For North America P400-ZEP

P300-ZEP (for 60-cell PV modules)		P400-ZEP (for 72 & 96-cell modules)	
INPUT		300	400
Rated Input DC Power ¹⁾		48	80
Absolute Maximum Input Voltage (Voc at lowest temperature)		8 - 48	8 - 80
MPPT Operating Range		10	10.1
Maximum Short Circuit Current (IsC)		12.5	12.63
Maximum DC Input Current			Adc
Maximum Efficiency		99.5	%
Weighted Efficiency		98.8	%
Overvoltage Category		II	
OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING INVERTER)		15	Adc
Maximum Output Current		60	Vdc
Maximum Output Voltage			
OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM INVERTER OR INVERTER OFF)		1	Vdc
Safety Output Voltage per Power Optimizer			
STANDARD COMPLIANCE			
EMC	FCC Part 15 Class B, IEC61000-6-2, IEC61000-6-3		
Safety	IEC62109-1 (class II safety), UL1741		
REHS	Yes		
INSTALLATION SPECIFICATIONS		1000	Vdc
Maximum Allowed System Voltage			
Dimensions including mounting bracket (WxLxH)	128 x 196 x 27.5 / 5 x 7.71 x 1.08	128 x 196 x 35 / 5 x 7.71 x 1.37	mm / in
Dimensions excluding mounting bracket (WxLxH)	128 x 152 x 27.5 / 5 x 5.97 x 1.08	128 x 152 x 35 / 5 x 5.97 x 1.37	mm / in
Weight (including cables and mounting bracket)	720 / 1.6	840 / 1.9	kg / lb
Input Connector		MC4 Compatible	
Output Connector		Double insulated MC4 Compatible	
Output Wire Length	0.95 / 3.0	12 / 3.9	m / ft
Operating temperature range	-40 - +85 / -40 - +185		C / F
Protection Rating	IP68 / NEMA 6P		
Relative Humidity	0 - 100		%
¹⁾ Rated DC power of the module. Module of up to -5% power tolerance allowed.			
PV SYSTEM DESIGN USING A SOLAREGE INVERTER²⁾		SINGLE PHASE HD-WAVE	SINGLE PHASE 208V
Minimum String Length (Power Optimizer)	8	10	18
Maximum String Length (Power Optimizer)	25	25	50
Maximum Power per String	5700 (6000 with STC600H-US)	5250	6000
Parallel Strings of Different Lengths or Orientations	Yes		12750
			W

²⁾ For detailed string design information refer to http://www.solar-edge.com/files/solar-edge_string_design_en.pdf



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Single Phase Inverter with HD-Wave Technology

for North America

SE3000H-US / SE3800H-US / SE5000H-US / SE6000H-US /
SE7600H-US / SE10000H-US / SE11400H-US



INVERTERS

Optimized installation with HD-Wave technology

- Specifically designed to work with power optimizers
- Record-breaking efficiency
- Quick and easy inverter commissioning directly from a smartphone using the SolarEdge SetApp
- Fixed voltage inverter for longer strings
- Integrated arc fault protection and rapid shutdown for NEC 2014 and 2017, per article 690.11 and 690.12
- UL1741 SA certified, for CPUC Rule 21 grid compliance
- Extremely small
- Built-in module-level monitoring
- Outdoor and indoor installation
- Optional: Revenue grade data, ANSI C12.20 Class 0.5 (0.5% accuracy)

solaredge.com



Single Phase Inverter with HD-Wave Technology for North America

SE3000H-US / SE3800H-US / SE5000H-US / SE6000H-US /
SE7600H-US / SE10000H-US / SE11400H-US

APPLICABLE TO INVERTERS WITH PART NUMBER												SE3000H-USSE3800H-USSE5000H-USSE6000H-USSE7600H-USSE10000H-USSE11400H-US												
												SEXXXXH-XXXXXXBX4												
OUTPUT																								
Rated AC Power Output	3000	3800 @ 240V 3300 @ 208V	5000	6000 @ 240V 5000 @ 208V	7600	10000	11400 @ 240V 10000 @ 208V	VA																
Maximum AC Power Output	3000	✓		✓		✓	✓	VA																
AC Output Voltage Min-Nom-Max	121-240 Vdc	✓		✓		✓	✓	VA																
DC Input Voltage Min-Nom-Max	183-208-229	✓		✓		✓	✓	VA																
AC Output Voltage Min-Nom-Max	183-208-229	✓		✓		✓	✓	VA																
AC Frequency (Normal)				59.3-60-60.5*				Hz																
Maximum Continuous Output Current @240V	12.5	16	21	25	32	42	47.5	A																
Maximum Continuous Output Current @208V	-	16	-	24	-	-	48.5	A																
Power Factor				1, adjustable -0.85 to 0.85																				
GFI Threshold				1				A																
Utility Monitoring, Islanding Protection, Country Configurable Thresholds				Yes																				
INPUT																								
Maximum DC Power @240V	4650	5900	7750	9300	11800	15500	17650	W																
Maximum DC Power @208V	-	5100	-	7750	-	-	15500	W																
Transformer-less, Ungrounded				Yes																				
Maximum Input Voltage				483				Vdc																
Normal DC Input Voltage		380				400		Vdc																
Maximum Input Current @240V ¹	8.5	10.5	13.5	16.5	20	27	30.5	Adc																
Maximum Input Current @208V ¹	-	9	-	13.5	-	-	27	Adc																
Max. Input Short Circuit Current				45				Adc																
Reverse Polarity Protection				Yes																				
Ground Fault Isolation Detection				600Us Sensitivity																				
Maximum Inverter Efficiency	99			99.2				%																
CEC Weighted Efficiency			99					%																
Nighttime Power Consumption				< 2.5				W																
							99 @ 240V 99.5 @ 208V	%																

¹ For other regional settings, please contact SolarEdge support.
² A higher current value may be used, the inverter will limit its input current to the values stated.

Single Phase Inverter
with HD-Wave Technology for North America

SE3000H-US / SE3800H-US / SE5000H-US / SE6000H-US/
SE7600H-US / SE10000H-US / SE11400H-US

SE3000H-US SE3800H-US SE5000H-US SE7600H-US SE10000H-US SE11400H-US									
ADDITIONAL FEATURES									
Supported Communication Interfaces		RS485, Ethernet, ZigBee (optional), Cellular (optional)							
Revenue Grade Data, ANSI C12.20		Optional ^{a)}							
Inverter Commissioning		with the SetApp mobile application using built-in Wi-Fi station for local connection							
Rapid Shutdown - NEC 2014 and 2017/2012		Automatic Rapid Shutdown upon AC Grid Disconnect							
STANDARD COMPLIANCE									
Safety		UL1741, UL1741 SA, UL1699B, CSA C22.2, Canadian AFCI (according to TLL M-07							
Grid Connection Standards		IEEE1547, Rule 21, Rule 14.1H							
Emissions		FCC Part 15 Class B							
INSTALLATION SPECIFICATIONS									
AC Output Conduit Size / AWG Range		3/4" minimum / 14-6 AWG				3/4" minimum /14-4 AWG			
DC Input Conduit Size / # of Strings / AWG Range		3/4" minimum / 1-2 strings / 14-6 AWG				3/4" minimum / 1-3 strings / 14-6 AWG			
Dimensions with Safety Switch (HxWxD)		17.7 x 14.6 x 6.8 / 450 x 370 x 174				21.3 x 14.6 x 7.3 / 540 x 370 x 185			
Weight with Safety Switch		22 / 10	25.1 / 11.4		26.2 / 119		38.8 / 17.6		
Noise		< 25				< 50			
Cooling		Natural Connection							
Operating Temperature Range		-40 to +140 / -40 to +60°							
Protection Rating		NEMA 4X (Inverter with Safety Switch)							

^{a)} Revenue grade inverter P/N: SE5000H-US0008NC4
^{b)} Full power up to at least 50°C / 122°F, for power derating information refer to: <https://www.solaredge.com/sites/default/files/derate-temperature-derating-note-na.pdf>

Q.PEAK DUO BLK-G6+ / SC

330-345

ENDURING HIGH PERFORMANCE



Q.ANTUM TECHNOLOGY: LOW LEVELED COST OF ELECTRICITY

Higher yield per surface area, lower BOS costs, higher power classes, and an efficiency rate of up to 19.5 %.



INNOVATIVE AL-WEATHER TECHNOLOGY

Optimal yields, whatever the weather with excellent low-light and temperature behavior.



ENDURING HIGH PERFORMANCE

Long-term yield security with Anti-LID and Anti-PID Technology¹, Hot-Spot Protect and Tolerable Quality Tra.Q™.



ZEP COMPATIBLE™ FRAME DESIGN

High-heat back Zep Compatible™ frame, for improved aesthetics, easy installation and increased safety.



A RELIABLE INVESTMENT

Inclusive 25-year product warranty and 25-year linear performance warranty².

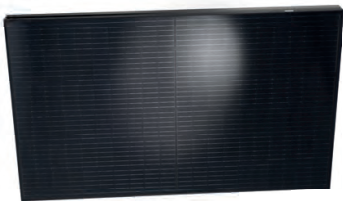


STATE OF THE ART MODULE TECHNOLOGY

Q.ANTUM DUO combines cutting edge cell separation and innovative wiring with Q.ANTUM technology.

¹ APT test conditions according to IEC/TIS 62804-1,2,3,5, method B (-1500V, 168h)

² See data sheet on new for further information



THE IDEAL SOLUTION FOR:

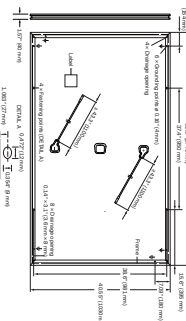


Engineered in Germany

Q CELLS

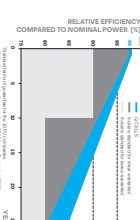
MECHANICAL SPECIFICATION

Format	683 x 408 x 1,571 (including frame)
Weight	42.3 lbs (21.5 kg)
Front Cover	0.13 in (3.2 mm) tempered low-iron glass with anti-reflection technology
Back Cover	Composite film
Frame	Black anodized aluminum
Cell	6 x 210 monocrystalline Q.ANTUM solar half-cells
Junction Box	2 093 x 98 x 1.28 in (74.9 x 39.6 x 32.6 mm) Protection class IP67 with bypass diodes
Cable	4mm ² Solar cable (V) ±4.3 in (110.0 mm) (-) ±4.3 in (110.0 mm)
Connector	Shuko MC4, PHE

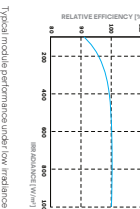


ELECTRICAL CHARACTERISTICS

POWERCLASS	330	335	340	345
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC* (POWER TOLERANCE: ±5 W / -0 W)				
Power at MPP	P _{MPP} [W]	330	335	340
Short Circuit Current	I _{sc} [A]	10.41	10.47	10.52
Open Circuit Voltage ¹	V _{oc} [V]	40.15	40.41	40.66
Current at MPP	I _{MPP} [A]	9.91	9.97	10.02
Voltage at MPP	V _{MPP} [V]	33.29	33.62	33.94
Efficiency ²	η [%]	≥18.4	≥18.7	≥19.0
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT ³				
Power at MPP	P _{MPP} [W]	2470	2507	2545
Short Circuit Current	I _{sc} [A]	8.39	8.43	8.48
Open Circuit Voltage	V _{oc} [V]	37.86	38.10	38.34
Current at MPP	I _{MPP} [A]	7.80	7.84	7.89
Voltage at MPP	V _{MPP} [V]	31.66	31.97	32.27
MEASUREMENT TOLERANCES P _{MPP} ±3%; I _{sc} , V _{oc} ±5% at STC; 1000 W/m ² ±2%; T _{cell} AM 1.5 according to IEC 60904-3 ± 900 W/m ² ; NMOT: spectrum AM 1.5				
Q CELLS PERFORMANCE WARRANTY				
PERFORMANCE AT LOW IRRADIANCE				



At least 98% of nominal power during the first 10 years of operation. At least 83.1% of nominal power up to 10 years. At least 75% of nominal power up to 25 years.



Typical module performance under low irradiance conditions in comparison to STC conditions, P_{STC} vs. 1000 W/m²

TEMPERATURE COEFFICIENTS

Parameter	α [%/K]	+0.04	Temperature Coefficient of V _{oc}	β [%/K]	-0.27
Temperature Coefficient of I _{sc}	γ [%/K]	-0.36	Normal Module Operating Temperature	NMOT [°F]	109.15 (43.37°C)

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage V _{sys}	[V]	1000 (IEC) / 1000 (UL)	Protection Class	II
Maximum Series Fuse Rating	[A DC]	20	Fuse Rating based on ANSI / UL 1703	C (IEC) / T (UL)
Max. Design Load Push/Pull (UL) ¹	[lbs / N]	50 (2200 Pa) / 50 (2200 Pa)	Permitted Medium Temperature	-40°F to +135°F (-40°C to +58°C)
Max. Tact. Load Push/Pull (UL) ¹	[lbs / N]	75 (3300 Pa) / 75 (3300 Pa)	on Continuous Duty	

¹ See data sheet on new for further information

QUALIFICATIONS AND CERTIFICATES



Not: Installation instructions must be followed. See the installation and operating manual or contact our technical service department for further information on approved installers and use of this product.

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